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09/902,345	07/10/2001	Paul W. Jones	82991THC	8881

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EXAMINER

KIM, JUNG W

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,345

Applicant(s)

JONES, PAUL W.

Examiner

Jung W. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/01, 6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-40 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-9 and 21-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Ginter et al. U.S. Patent No. 6,253,193 (hereinafter Ginter).

4. As per claim 1, Ginter discloses a system for securely embedding a watermark representing message data into movie data consisting of one or more frames of a digital

image sequence, and displaying one or more frames of the digital image sequence containing the embedded watermark (col. 4:3-55; 195:59-198:37), comprising:

- a. means for providing a secure environment (4:3-5:7; figure 5a and related text);
 - b. means for combining the movie data with the watermark within the secure environment to produce watermarked movie data (196:7-12); and
 - c. means for forming a displayed image from the watermarked movie data within the secure environment (39:48-40:7; 60:30).
5. The aforementioned cover the limitations of claim 1.
6. As per claim 2, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the movie data is uncompressed data. Ginter, col. 196:7-12; 198:27-29.
7. As per claim 3, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the movie data is compressed data. Ginter, 68:1-17.
8. As per claim 4, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the system further including means for storing the movie data within the secure environment. Ginter, col. 62:43-63:17.

9. As per claim 5, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the movie data has been encrypted to produce encrypted data representing the digital image sequence, and further including means for decrypting the encrypted data within the secure environment to produce movie data. Ginter, col. 12:32-39; 39:48-40:7; 67:6-52.

10. As per claim 6, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the movie data has been compressed and encrypted to produce compressed and encrypted data representing the digital image sequence, and further including means for decrypting the compressed and encrypted data within the secure environment to produce compressed data, and means for decompressing the compressed data within a secure environment to produce movie data. Ginter, col. 12:32-39; 39:48-40:7; 68:1-17; 67:7-52.

11. As per claim 7, the rejection of claim 6 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the system further including means for storing the compressed and encrypted data. Ginter, col. 62:43-63:17; 68:1-17; figure 5a and related text.

12. As per claim 8, the rejection of claim 6 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the system further including means for storing the

compressed data within the secure environment. Ginter, col. 62:43-63:17; 68:1-17; figure 5a and related text.

13. As per claim 9, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the secure environment is provided by a combination of physical and logical protection techniques. Ginter, col. 12:32-39; 39:48-40:7.

14. As per claims 21-29, they are method claims corresponding to claims 1-9 and they do not teach or define above the information claimed in claims 1-9. Therefore, claims 21-29 are rejected as being anticipated by Ginter for the same reasons set forth in the rejections of claims 1-9.

15. Claims 10, 13, 14, 20, 30, 33, 34 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao et al. U.S. Patent No. 6,141,753 (hereinafter Zhao).

16. As per claim 10, Zhao discloses a system for securely embedding watermark information in one or more frames of a digital image sequence, comprising:

- d. means for providing a secure environment (Zhao, col. 4:27-62);
- e. means for generating a watermark key for one or more frames in the digital image sequence within the secure environment (Zhao, 3:59-67, the secret key);

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f. means for generating a watermark message for one or more frames in the digital image sequence within the secure environment (Zhao, 3:62-64; 4:7-26; 6:39-50);

g. means for generating a watermark pattern for one or more frames using the corresponding watermark key and watermark message within the secure environment, and combining the watermark pattern with the corresponding frame of the digital image sequence within the secure environment (Zhao, 6:34-9:33).

17. The aforementioned cover the limitations of claim 10.

18. As per claim 13, the rejection of claim 10 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the system further including means for securely sending the watermark key to a remote database. Zhao, col. 8:40-48, 60-65; 9:10-16.

19. As per claim 14, the rejection of claim 10 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the system further including means for securely sending the watermark message to a remote database. Zhao, col. 8:61-65.

20. As per claim 20, the rejection of claim 10 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the secure environment is provided by a combination of physical and logical protection techniques. Zhao, col. 4:27-5:52, especially, 4:63 and 5:16-19.

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21. As per claims 30, 33, 34 and 40, they are method claims corresponding to claims 10, 13, 14 and 20, and they do not teach or define above the information claimed in claims 10, 13, 14 and 20. Therefore, claims 30, 33, 34 and 40 are rejected as being anticipated by Zhao for the same reasons set forth in the rejections of claims 10, 13, 14 and 20.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

24. Claims 11, 15-17, 31 and 35-37 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zhao in

view of Koch "Towards Robust and Hidden Image Copyright Labeling" (hereinafter Koch).

25. As per claims 11 and 15-17, the rejection of claim 10 under 35 U.S.C. 102(e) is incorporated herein. Zhao further discloses employing a watermark technique called Randomly Sequenced Pulse Position Modulated Code as explained by Koch in "Towards Robust and Hidden Image Copyright Labeling". Zhao 11:5-10. Koch discloses a watermark technique whereby existing encryption and pseudorandom number generation techniques are used to establish a random sequence of locations for embedding hidden copyright code; whereby the embedding process uses a simple pulsing method. Koch, pg. 2-pg. 3, section 3 'System Framework'. This technique has the properties of generating a watermark key including means for updating the key throughout the digital image sequence (random sequence of locations by pseudorandom number), acquiring a secure watermark root key from a remote server and using the watermark root key in generating the watermark key (pseudorandom number is the root key; Zhao, 9:20-33), wherein the watermark root key is an initialization key (the pseudorandom number initializes the sequence of random locations), and means for acquiring a secure watermark root message from a remote server and using the watermark root message in generating the watermark message (Zhao, 8:58-65). Hence, it would be obvious to one of ordinary skill in the art at the time the invention was made for the secure distribution methodology of Zhao to employ the watermarking technique disclosed by Koch since the watermark is more difficult to

detect and more resistant to alteration than other watermarks. Zhao, 11:10-16. The aforementioned cover the limitations of claims 11 and 15-17.

26. As per claims 31 and 35-37, they are method claims corresponding to claims 11 and 15-17, and they do not teach or define above the information claimed in claims 11 and 15-17. Therefore, claims 31 and 35-37 are rejected as being unpatentable over Zhao and Koch for the same reasons set forth in the rejections of claims 11 and 15-17.

27. Claims 12, 18, 19, 32, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao in view of Koch, and further in view of Stefik et al. U.S. Patent No. 6,233,684 (hereinafter Stefik).

28. As per claims 12, 18 and 19, the rejection of claim 17 under 35 U.S.C. 102(e) or in the alternative 103(a) is incorporated herein. Zhao does not expressly teach the step of generating the watermark message including means for generating a validated time stamp, the watermark root message including a unique theater ID or a unique presentation ID. Stefik discloses generating watermark messages to watermark rendered digital works, wherein the step of generating a watermark message including means for generating a render-time, the watermark root message including a unique user-id, institution-location, render-location, render-name, and render-time. Stefik, col. 5:19-25; 6:18-25; fig. 5, reference no. 501 and 508; fig. 10 and related text. Hence, it would be obvious to one of ordinary skill in the art at the time the invention was made

for the generation of the watermark message to include generating a validated time stamp (render-time), the watermark root message including a unique theater ID (render-location) and a unique presentation ID (render-location, render-name, render-time) since it defines secure copyright restrictions by specifying controls on the distribution and use of digital works. Stefik, 3:5-39. The aforementioned cover the limitations of claims 12, 18 and 19.

29. As per claims 32, 38 and 39, they are method claims corresponding to claims 12, 18 and 19, and they do not teach or define above the information claimed in claims 12, 18 and 19. Therefore, claims 32, 38 and 39 are rejected as being unpatentable over Zhao, Koch and Stefik for the same reasons set forth in the rejections of claims 12, 18 and 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is (571) 272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim
Examiner
Art Unit 2132

Jk
April 22, 2005



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